

AMS San Diego Testbed – Simulation Results

Download Data Zip file: <https://doi.org/10.21949/1500873>

Identification Information

Citation

Citation Information

Originator: Booz Allen Hamilton and TSS-Transport Simulation Systems

Project: Analysis, Modeling and Simulation (AMS) Testbed Development and Evaluation to Support

Dynamic Mobility Applications (DMA) and Active Transportation and Demand Management (ATDM) Programs

Title: AMS San Diego Testbed Simulation Results

Geospatial Data Presentation Form: UTM Zone 11N

(EPSG:32611) **Publication Information**

Publication Place: Washington, D.C.

Publisher: U.S. Department of Transportation's (USDOT) Intelligent Transportation Systems (ITS) Joint Program Office (JPO)

Online Linkage: <https://www.its-rde.net/>

Description

This repository contains the simulation output data produced with the San Diego AMS Testbed. The testbed model files are provided as a separate repository. Output data were obtained by running simulations in Aimsun and consists of – (1) Scenarios Table which lists the scenarios that were simulated as part of the San Diego evaluation, (2) Scenario Aggregates which includes 15-minute aggregates of simulation results obtained as an average of different random-seed simulations performed under each scenario, and (3) Raw Data Sample which consists of three full database outputs of three sample scenarios.

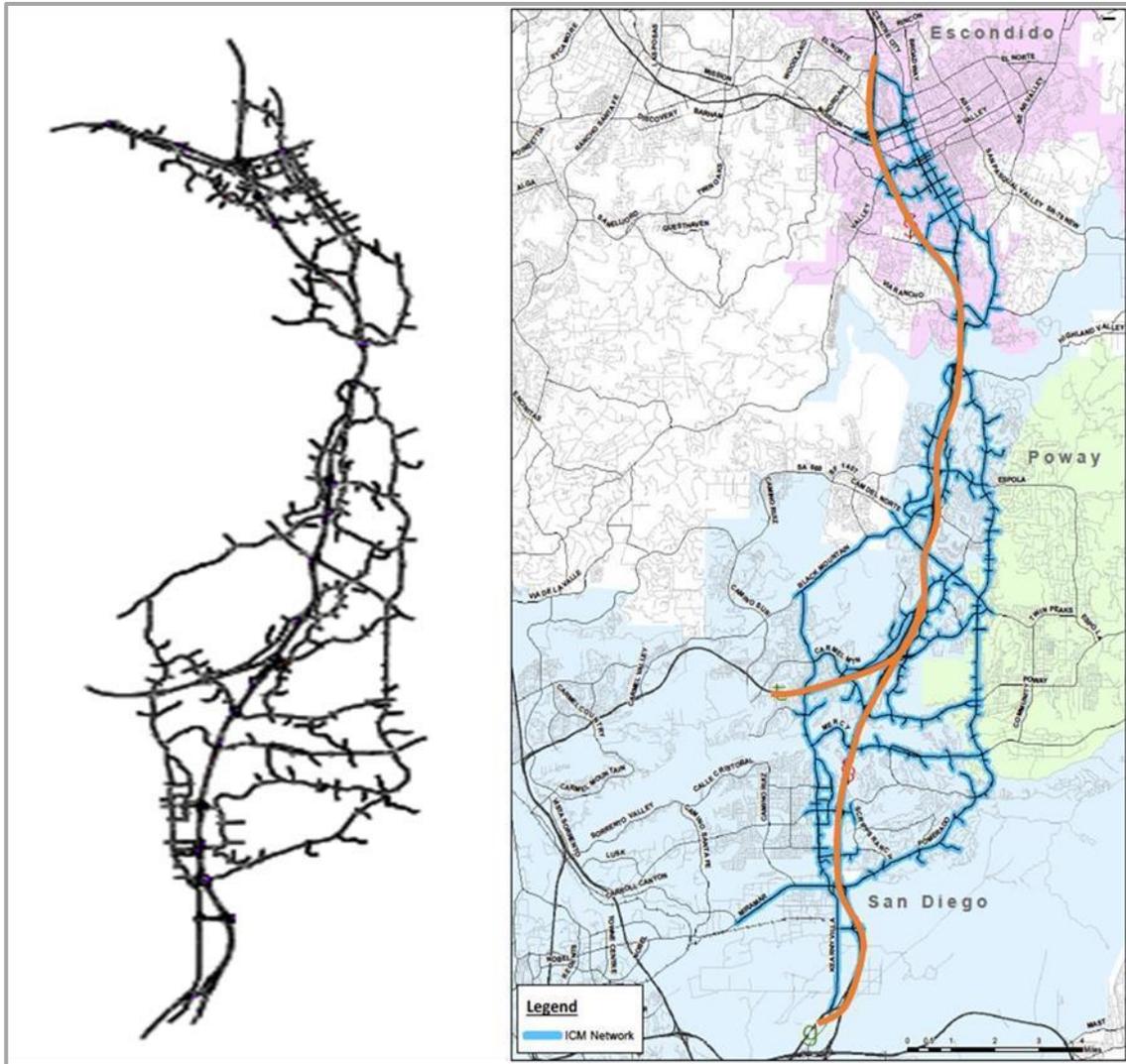
Status

Progress: Complete

Maintenance and Update Frequency: None planned

Spatial Domain

The data in this repository were collected from the San Diego, California AMS testbed, namely, a 22-mile-long stretch of the I-15 freeway and associated parallel arterials. The image below shows the area covered by the simulation model (to the left) and its geographic context (to the right). The I-15 Corridor is a major north-south corridor connecting downtown San Diego with many of the suburbs and cities north of San Diego. Prominent issues include frequent traffic incidents and severe congestion.



Keywords

Theme

Theme Keyword: San Diego, California Testbed

Theme Keyword: Incidents

Theme Keyword: Speed Contour

Theme Keyword: VMT

Theme Keyword: VHT

Place

Place Keyword: I-15

Place Keyword: San Diego, California

Native Data Set Environment:

Documentation: This data environment contains four data sets: (1) Scenarios Table which lists the scenarios that were simulated as part of the San Diego evaluation, (2) Scenario Aggregates which includes 15-minute aggregates of simulation results obtained as an average of different random-seed simulations performed under each scenario, and (3) Raw Data Sample which consists of three full database outputs of three sample scenarios.

Data Quality Information

Attribute Accuracy: No accuracy assessment has been performed for the data set.

Completeness Report: The USDOT does not make any claims regarding data completeness. There may be gaps in the data provided.

Entity and Attribute Information

Description for Scenarios Table Data Set

The Scenarios Table is an Excel file that describes the 44 scenarios that were simulated using the San Diego Testbed. It is structured in three tabs, one for each phase according to the Analysis Plan.

Description for Scenario Aggregates Data Set

Each Scenario Aggregates file is an Excel file that contains the aggregated simulation outputs for an average of five replications for each scenario. It is structured in two tabs, one providing the speed contour in 15-minute intervals along I-15 in the relevant direction for the Operational Condition (southbound for AM1 and AM2, northbound for PM3 and PM4), and one providing network-wide traffic performance indicators (VMT, VHT, etc.) for the whole simulation period.

Description for Raw Data Sample

The Raw Data Sample files are full database outputs, in SQLite format, of the Aimsun simulations for three sample scenarios:

- Phase 1, Scenario 7
- Phase 2, Scenario 2, 50% penetration rate
- Phase 2, Scenario 10, 50% penetration rate.

Each database includes the five runs with different random seeds and the average.

For more details on the structure of the database, please refer to the Aimsun Users' Manual.

Distribution Information

Distributor

Contact Information

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Access Constraints:

To access the data set, users must register through the USDOT Research Data Exchange (RDE) portal (<https://www.its-rde.net/>). The registration process will include a request for contact information and agreement to terms of use for the data. What information is optional versus mandatory for registration has not been finalized; however, in order to encourage broad access and use, mandatory information will be kept to a minimum and ease of use maximized. See the RDE Terms of Use and Data Privacy Policy on how registration information is kept secure and for uses only applicable to the RDE administration.

User Constraints:

Those who use data and data processing tools distributed by the Research Data Exchange have the following responsibilities:

1. Where the contributed materials have been utilized to any extent to enable, verify, supplement or validate performance measurement, analysis, research or software development, to fully reference the Research Data Exchange Program and the contributions of the individuals in all subsequent and related publications or public events, specifically:
 - a. In publications, reference the Research Data Exchange website and the date accessed, data and/or data processing tools (by name and version number), and the individual contributors identified on the reference template associated with each data and/or data processing tool.
 - b. In presentations or other oral communication, by noting the data and/or data processing tool by name and version number, and communicating the address of the Research Data Exchange website.
2. Users are encouraged to accurately post and update within the Research Data Exchange website a description of the project utilizing the data and/or the data processing tools, including:
 - a. A description of the project, including a brief statement of the project goals.
 - b. A summary of the hypotheses and findings (when available) of the project.
 - c. Individuals directing and/or substantively participating in the project.
 - d. The name and version number of the data and/or data processing tools downloaded and utilized in the project.
 - e. The current state of the project (upcoming, underway, completed).
 - f. References to published materials (if any).

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3. Users are encouraged to report anomalies, errors or other questionable data elements using the Data Forum of the Research Data Exchange website, referencing the specific data or data processing tool by name and version number.
 4. To refrain from duplication and dissemination of the data and data processing tools to third parties.

Publication of certain derived information such as location of residence, specific stores visited, purpose of trips, etc. must be cleared with the data set originator prior to publication.

Point of Contact

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